

MONO COUNTY GENERAL PLAN DRAFT EIR



SECTION 4.11

AGRICULTURE, FORESTS & CONSERVATION

4.11.1 INTRODUCTION AND SUMMARY

This section provides a background discussion of agricultural lands and forest/timber resources found in Mono County, and the potential impacts on these resources that may occur in association with the proposed comprehensive update to the county's *General Plan & RTP* and related planning initiatives. Information for this section is based in part on data from the Mono County MEA (Chapter III, Land Use), the *Draft Conservation/Open Space Element* and other sources as cited in the text. The MEA can be accessed at <http://www.monocounty.ca.gov/>. No NOP comments were received that addressed agriculture. Key findings are summarized in the table below.

**SUMMARY OF GENERAL PLAN IMPACTS & POLICY MITIGATIONS FOR
AGRICULTURE, FORESTS and CONSERVATION**

IMPACT LU 4.11(a):	<u>Convert Prime Farmland to Nonagricultural Use</u>
Pre-Mitigation Significance:	Less than Significant
Mitigating Policies:	See Table 4.11-5 in Appendix D
Residual Significance:	Less than Significant
IMPACT LU 4.11(b):	<u>Rezone or Conflict with Zoning of Agricultural or Forest Lands</u>
Pre-Mitigation Significance:	Less than Significant
Mitigating Policies:	See Table 4.11-5 in Appendix D
Residual Significance:	Less than Significant

4.11.2 KEY TERMS USED IN THIS SECTION

Conservation Agriculture. Conservation agriculture is an approach that emphasizes improved and sustained productivity, increased profits and food security alongside preservation and enhancement of the resource base and the environment.

Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.

Important Farmlands. The California Department of Conservation, as part of its Farmland Mapping and Monitoring Program (FMMP), prepares Important Farmland Maps indicating the potential value of land for agricultural production.

Mapping is conducted for selected counties; there is no important farmland data or mapping available for Mono County as of May 2015.¹

Prime Farmland. Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland. Farmland of lesser-quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

4.11.3 OVERVIEW OF BASELINE CONDITIONS

The Mono County MEA (Chapter III, Land Use) notes that lands in the County follow a general pattern of use whereby residential and commercial uses are concentrated in small communities located in the valleys, the valley floors are used for grazing and crops, and recreational uses are dispersed throughout the county. Private lands outside community areas generally are used for agriculture, grazing, and recreational development, whereas public lands in some areas are used for livestock grazing, timber production, fuelwood cutting, and mining.

4.11.3.1 Agricultural Lands.

Agriculture plays a major role in the economy and ecology of Mono County. The US Department of Agriculture (USDA) provides a profile census of agriculture for California counties.² The 2012 census for Mono County indicates 72 active farms in Mono County as of 2012, down 14% from the 84 farms that were cited in the 2007 census. Though fewer farms were in operation, total farm acreage increased during that period from 44,610 acres in 2007 to 56,386 acres in 2012 (a 26% increase). The market value of agricultural activity increased by an even larger margin, increasing from \$9.77 million in 2007 to \$17.98 million in 2012 (an 84% increase). Crop sales represented 49% of the market value, and livestock sales represented 51%; farm income averaged \$146,626. Demographically, farms in Mono County are operated by older individuals (average age of 61.5) who are male (85%), white (99%) and principally engaged in farming as opposed to other occupations (58%).

The top crop items by acreage in Mono County as of 2012 included forage land for hay (including haylage, grass silage and greenchop), followed by vegetables, garlic, and cuttings (including seedlings, liners and plugs). The top livestock items included cattle and calves, followed by sheep and lambs, horses and ponies, bee colonies and layers. Mono County was the leading county in terms of the sale of cattle and calves, according to a series of system indicator analyses on *Agricultural Lands and Ranches* by the Sierra Nevada Conservancy (SNC),³ with a gross revenue of \$24.4 million. Table 4.11-1 shows the gross value of agricultural production in Mono County by crop as of 2011:

TABLE 4.11-1: Gross Value of Mono County Agricultural Production (eastern SNC Subregion) by Crop, 2011.	
Crop	Gross Value
Hay, Alfalfa	\$16,088,000
Cattle, Stockers, Feeders	\$9,579,000
Cattle, Steers	\$6,480,000
Cattle, Heifers	\$4,899,000
Hay, Other, Unspecified	\$4,500,000
Sheep and Lambs	\$3,990,000

¹ Department of Conservation Website: <http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx> Accessed 5-4-15.

² http://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/California/cpo6051.pdf

³ Sierra Conservancy, *System Indicators, Agricultural Lands and Ranches*, Final Report, December 2013.

Cattle, Cows	\$3,036,000
Pasture-Irrigated	\$1,925,000
Potatoes	\$803,000
Garlic	\$739,000

The SNC reports note that of counties fully within the SNC Region, Lassen, Mono, and Mariposa Counties had the leading agricultural commodities sales in 2011 at \$89,539,000, \$53,068,000, and \$30,975,000, respectively. The reports also found that median farm and ranch size in the East Subregion (including Mono County) was the largest of any SNC Subregion. In 2011, nearly 1 million acres of all land (roughly 70%) in the counties fully within the region were in prime (agriculture) and non-prime (rangeland) Williamson Act contracts. Overall, Mono County ranked #44 of 58 states in total agricultural production.

The SNC finds that farms and ranches contribute much to the region, including valuable ecosystem services that go well beyond agricultural productivity. In particular, they assist in preserving oak woodlands, store carbon, cycle nutrients, capture runoff, and provide habitat for many sensitive species, and play a critical role in the conservation of many habitats and dependent species. Throughout California as a whole, farms and ranches face significant threats including a significant conversion of acreage to other uses. Until FY 2008-09, the State provided local governments with an annual subsidy for the property tax revenues lost to farmland contracts; the program was substantially discontinued due to revenue shortfalls. Local governments have been able to collect a portion of the foregone revenues, and at the time the report was prepared, all but two SNC counties with Williamson Act programs (Modoc and Plumas) have continued accepting new contracts. If counties are unable to maintain their programs, some research indicates that ranchers who have low household income and are wholly dependent upon farm operation for their income may feel compelled to sell their ranches; the SNC cites studies indicating that if the Williamson Act program were eliminated, up to 37% of ranchers would attempt to sell some or all of their land. The SNC data indicate no change in the acreage of prime soils in Mono County between 2006 and 2011. As of 2011, Mono County had approximately 13,000 acres of land in Williamson Act contracts,⁴ which is about 3% higher than the estimated 12,600 acres under contract in 2008.⁵ The County has suspended accepting new Williamson Act contracts until the funding programs are restored.⁶

4.11.3.2 Forest Lands.

The SNC has also prepared a *System Indicators Report for Forest Health and Carbon Storage*⁷ that describes the extent, character, and ownership of forest land in the SNC Region. The report notes that forest ownership patterns vary by Subregion: The East Subregion (of which Mono County is a part) has the fewest acres of productive forestland (just over half a million acres) but the highest public ownership at 97%. The SNC notes that wildfire suppression has had a number of profound impacts on forest health, particularly in the Sierra Nevada. These effects include changes in forest species composition that have increased competition for available moisture, and there is some evidence that the heightened moisture stress has increased forest susceptibility to insects and disease.

In combination with increased logging activity over the past 150 years, these changes have produced forest growth of relatively uniform age and size, which has amplified fuel loading and led to an increase of high-severity fires (where most or all trees are killed). The average and maximum sizes of patches of high-severity fire doubled in the Sierra Nevada between 1984 and 2006. To reduce these impacts, forest managers have conducted forest fuels treatments including forest thinning, brush masticating, and creating fuel breaks. Fuels reduction projects have reduced the severity of wildfires and increased the likelihood of tree survival, but cannot fully replace the benefits of fire in shaping Sierra forests (e.g., aspen restoration is most effective after fire stimulates new shoots, and the seeds of some rare plants need the chemical stimulus of fire to germinate and recolonize a site). Unfortunately, many of the ecological effects of low-severity fire on forest ecosystem function are not well understood. Therefore, the length of absence of low-severity fire from the forest can be seen as one indicator of its ecological health.

⁴ Sierra Conservancy, *System Indicators, Land Conservation and Wildlife Habitat*, Final Draft Report, November 2011.

⁵ Mono County Community Development Department, *Ag Land Under Williamson Act Contracts, 2008*.

⁶ Brent Calloway, Mono County Community Development Department, 6-15-15.

⁷ Sierra Conservancy, *System Indicators, Forest Health and Carbon Storage*, Final Report, December 2012.

Fire return interval (FRI) is another important indicator. Prior to fire-suppression programs, lower-elevation forested areas burned every 11 years on average; in subalpine forests, where fuels accumulate much more slowly, the FRI was found to be 133 years. The SNC report indicates that 74% of the Sierra landscape as a whole has not had a single wildfire or prescribed burn in the last 103 years; in the Eastern SNC Region (of which Mono County is a part), roughly half of the forest acreage has more than a 66% departure from pre-settlement fire return interval.

Cal Fire has assembled data about severe wildfire threats to ecosystems in California in order to prioritize areas where the threat of high-severity wildfire to ecosystem services is highest and where the need is greatest for treatments to reduce fire impacts. Sierra mixed conifer forests (3.7 million acres) were identified as the ecosystem with the largest area of high priority landscape of any in California. In the Sierra Nevada as a whole, almost 5½ million acres (half of total) was classified as high priority for treatment to prevent severe wildfire threats to forest ecosystems. However, the East Subregion (including Mono County) had very little forest area (just over 36,000 acres) where ecosystems were prioritized for action to relieve the threat of severe wildfires.

Cal Fire also analyzed watersheds where a high percentage of the landscape is at risk for damage from severe wildfires. High-severity fire can significantly impact watershed function by increasing the volume and probability of sediment delivery. Fires expose soils to erosive precipitation and kill plants whose roots give the soil strength. Again, the East Region was ranked to have the lowest threat, with just 7% of watershed area at high risk, and fully 77% of watershed area with low or no risk.

Forest Pests. Insects and diseases are a natural and necessary part of Sierra forest ecosystems, but stresses have rendered trees less able to respond to insects and disease; the SNC cites evidence that the background rate of tree mortality has been increasing. Global warming is believed to contribute to this by increasing drought stress while stimulating the growth and reproduction of insects and pathogens that attack trees. Cal Fire has assembled data about forest pest threats to prioritize areas where the threat is highest and need for action greatest (including removal of dead and dying trees and surrounding vegetation, removal of soil harboring pathogens, landowner education land forestry assistance programs). Sierra mixed conifer forests were identified as the most impacted forest type (1.7 million acres in need of restoration). In the Sierra Nevada, almost 1.2 million acres were identified as high-priority areas, 75% of which are on lands managed by USFS.

When associated with high levels of tree mortality, forest pests can be disruptive to human communities. Dead and dying trees can fall and block transportation routes, hit power lines, or crush structures. Cal Fire has authority to declare 'Zones of Infestation' within pest eradication or control measures can be implemented on private lands. In 2010, Cal Fire declared Zones of Infestation for bark beetles in the Lake Tahoe basin and the Southern California mountains. The five Sierra communities with the largest acreage in need of restoration are all found at elevations above 4,900'; none of the five communities is located in Mono County, however, several areas of the county have documented beetle infestations.

Forest Carbon Cycle. The SNC report notes that forest ecosystems play a critical role in the carbon cycle by taking in carbon dioxide and releasing oxygen to the atmosphere where it is breathed in by humans and animals. Carbon dioxide is emitted when forests burn and later when trees killed by pests and fire start to decay. In response to a growing scientific consensus that atmospheric carbon dioxide has contributed to changing climate patterns, there is now interest in developing methods to maintain and increase the amount of carbon stored in forests. Estimates of the amount of carbon stored in forests is derived from tree measurements that focus on biomass (the portion of tree weight that is not water—roughly 50%). Biomass is generally considered to be an indicator of the productivity of the ecosystem, and forest biomass is about half carbon (the rest is made up of other elements necessary for tree health and function). Carbon storage is greater in colder climates (cold causes vegetation to decompose slowly, leading to large areas of carbon-rich soil and peat bogs) and lower in tropical forests where warm, moist conditions cause organic matter to decompose quickly. Carbon stored in Sierra soils is in between these two extremes. The SNC cites a recent estimate that California mixed conifer forests store about 107 total tons of carbon per acre, half of which is found in trees and 21% of which is contained in the soil. The lowest concentration of biomass in the SNC region was in the East Subregion (including Mono County) with only about 4% of the Sierra total.

Forest Biomass. Sierra Nevada forests are currently storing over 840 million tons of biomass. The SNC notes that this is likely higher than historic levels due in part to fire suppression and reduced timber harvesting on public lands. While the increased carbon storage moderates causes of climate change in the short term, it may in the longer term elevate risk because dense forests are more at risk of high-severity fire events and thus more prone to a large release of carbon when fire-killed trees decay. The Report references a study by USFS that predicts that forests in California will accumulate carbon more slowly than they lose it (to fire, pests and competition), and thus become net carbon emitters by the end of this century. Thus forest management may be a key element in the County's efforts to reduce greenhouse gas emissions, but the data may at this stage be insufficient to support proactive policies and actions. The SNC notes that there is uncertainty about how and whether thinning improves the long-term stability of carbon storage; the fate of removed woody material may be a key factor in determining the effectiveness of forest fuels reduction on increased carbon storage; several studies have concluded that treated forests may have higher carbon loss when the removed carbon is factored into calculations, though use of the thinned trees as lumber or biofuel would reduce the carbon loss.

4.11.3.3 Conservation.

In another analysis of system indicators analyses, the SNC conducted a *Land Conservation and Wildlife Habitat* assessment.⁸ The report defined "land conserved" as public lands, private lands with conservation easements, or private lands acquired in fee title for purposes of conservation, and found that a significant portion of the Sierra Nevada region as whole is conserved in some way. The report noted that the SNC Region is a primary source of many critical resources in California, providing fully 65% of the state's developed water supply as well as habitats (forest, agricultural and rangeland) for 60% of animal and 50% of plant species and numerous economic and cultural benefits.

In whole, the report found that 64% of land in the SNC region (16.4 million acres) is conserved; of this, roughly 63% is in public ownership. Most of the public land is managed by one of three federal agencies: USFS (64.3%), BLM (19.3%) and the National Park Service (10.6%). One percent of the SNC region is conserved in private ownership, including 178,246 acres with conservation easements and 41,872 acres in private fee title ownership for conservation.

The SNC region varies widely in terms of conservation; overall conservation is highest in the East Subregion which includes Mono County (98.3%), and this region is second highest in the percent of private lands conserved (4.0% -- second only to the North Central region with 8.8%). In whole, the SNC region has 11.6 million acres in large intact natural areas (49% of total land area). The distribution of these large natural areas significantly increases with elevation. Below 3,000 ft., roughly 1.4 million out of a total of 5.3 million acres (26%) are identified as large natural areas; between 3,000 ft. and 6,000 ft. are roughly 4.3 million acres (37%). Above 6,000 ft., large natural areas comprise more than 5.9 million of the 8.6 million total acres (69%), largely because 97% of the land above 6,000 ft. is in public lands management (much of it in wilderness designation). However, the higher elevations generally support fewer wildlife species and less plant diversity and overall productivity than the lower elevations.

Road density is a key factor determining the presence of large intact natural areas. Despite low population, the mid-elevations of the Sierra have road densities higher than in the higher elevations (2.3 miles/sq. mi. versus 1.47 miles/sq. mi. above 6,000 ft.), and are subject to loss and fragmentation of available habitat for many wildlife species, as well as urban threats including collisions, domestic pets, disease, and non-native species invasions. The report notes that conservation easements are important to preserving agriculture and ranching, where development pressures are greatest. The Williamson Act has been instrumental in protecting ranches and agricultural lands in the Sierra Nevada.

4.11.3.4 Prime Farmland Trends.

The Department of Conservation, Farmland Mapping and Monitoring Program (FMMP) provides resources for agricultural producers as well as mapping for important farmlands in the state.⁹ Mono County has not been mapped pursuant to the FMMP, nor has it been mapped as part of the USDA Natural Resources Inventory (NRI),¹⁰ although the

⁸ Sierra Conservancy, *System Indicators, Land Conservation and Wildlife Habitat*, Final Draft Report, November 2011.

⁹ FMMP website: <http://www.conservation.ca.gov/dlrp/fmmp/overview/Pages/index.aspx>

¹⁰ USDA website http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1167354.pdf; *Summary Report: 2010 National Resources Inventory*, Natural Resources Conservation Service, & Center for Survey Statistics & Methodology, Iowa State University. 2013

most recent mapping effort was intended to provide county-level data (resources were not available to do so). However, the 2010 NRI Summary Report does profile agricultural trends on national, state and regional levels.

Following a steady decline for several decades, overall cropland acreage in the US increased by about 2 million acres (a 0.5% increase) from 2007 to 2010. Acreage in the Conservation Reserve Program (CRP) was reduced by almost 18% between 2007-10; most of that land became cropland or pastureland. Soil erosion on cropland (including erosion from wind and water) decreased 41% between 1982 and 2010. As of 2010, about 23% (316 million acres) of non-federal rural land was classified as prime farmland, a loss of 13 million acres (about 4%) since 1982; most of the loss was due to development. In California, prime cropland acreage decreased from 5.6 million to 4.8 million acres between 1982-2010, and prime forest lands decreased from 26,000 to 24,000 acres; prime pastureland increased during the same period from 271,000 to 317,000 acres; and prime rangeland increased from 91,000 to 94,000 acres.

4.11.4 REGULATORY SETTING

4.11.4.1 Federal Programs and Regulations

Farmland Protection Policy Act. The Natural Resources Conservation Service (NRCS), part of the USDA, implements the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are compatible with state, local, and private farmland protection programs. NRCS provides technical assistance to federal agencies, state and local governments, tribes, or nonprofit organizations that desire to develop farmland protection programs and policies; NRCS also summarizes FPPA implementation in an annual report to Congress.

Farm and Ranch Lands Protection Program. NRCS administers the Farm and Ranch Lands Protection Program (FRPP), a voluntary program aimed at keeping productive farmland in agricultural uses. Under the FRPP, the NRCS provides matching funds to state, local, or tribal government entities and nonprofit organizations with existing farmland protection programs to purchase conservation easements. According to the 1996 Farm Bill, the goal of the program is to protect between 170,000-340,000 acres of farmland per year. Participating landowners agree not to convert the land to non-agricultural use for at least 30 years, and retain all rights to use the property for agriculture. A conservation plan must be developed for all enrolled lands based on standards contained in the NRCS Field Office Technical Guide. Applications with perpetual easements receive priority consideration. The NRCS provides up to 50% of the fair market value of the easement being conserved. To qualify for a conservation easement, farm or ranch land must be a) privately owned, b) rated as prime, unique, or other productive soil, c) part of a conservation plan, d) large enough to sustain agricultural production, e) accessible to markets for the crop that the land produces, and f) surrounded by land that can support long-term agricultural production.

Natural Resources Conservation Service (NRCS). NRCS offers a number of programs aimed at improving forage, water quality and wildlife habitat, including the Environmental Quality Incentives Program (EQUIP); the Wildlife Habitat Incentives Program (WHIP); the Cooperative Conservation Partnership Initiative (CCPI); the Conservation Stewardship Program (CSP); the Wetland Reserve Program (WRP); the Farm & Ranch Protection Program (FRPP); and the Grazing Reserve Program (GRP). The EQUIP, WHIP, CCPI, and CSP programs focus on forage, water quality and wildlife habitat, while the WRP, CCPI and GRP are easement programs to protect working landscapes from development; the latter programs may include restoration to improve wetland, farming and grazing functions. Local Resource Conservation Districts (RCDs) may operate similar programs in concert with the NRCS.

United States Fish and Wildlife Service (USFWS). USFWS operates the Partners for Fish and Wildlife Program, a voluntary collaboration of the USFWS, landowners, and other potential partners to implement fish and wildlife restoration projects using a 50% cost share. The program has supported wetland and upland restoration efforts on ranches in the Sierra (Tehama and Calaveras counties).

4.11.4.2 State Programs and Regulations

California Important Farmland Inventory System and Farmland Mapping and Monitoring Program (FMMP). The California Department of Conservation (CDOC) sponsors the FMMP and is also responsible for establishing agricultural

easements in accordance with PRC §10250–10255. Important Farmland maps classify land according to eight categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Lands, Land Committed to Nonagricultural Use, and Other Lands. The CEQA Guidelines (Appendix G) use the designations for Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to define the significance of impacts to agricultural resources.

Williamson Act Contracts. The California Land Conservation Act of 1965 (known as the Williamson Act) enables local governments to form contracts with private landowners to promote continued use of agricultural lands. The Williamson Act empowers local governments to establish “agricultural preserves” in which agricultural landowners enter into renewable contracts that restrict the land to agricultural use for at least 10 years. In return, the landowner is guaranteed a relatively stable tax base that is based on the value of the land for agriculture instead of full market value. Cancellation of a Williamson Act contract entails an extensive review and approval process, as well as fees of up to 12.5% of the property value. Local jurisdictions approving the cancellation must make one of the following findings: a) that the cancellation is consistent with the purpose of the California Land Conservation Act (CGC §51282(a)), or b) that the cancellation is in the public interest (CGC §51282(b)). A finding under CGC §15182(a) requires that all of the following additional sub-findings also be made: (i) that the cancellation is for land on which a notice of nonrenewal has been served, (ii) that cancellation is not likely to result in the removal of adjacent lands from agricultural use, (iii) that cancellation is for an alternative use that is consistent with provisions of the applicable general plan, (iv) that cancellation will not result in discontinuous patterns of urban development, and (v) that there is no proximate non-contracted land that is both available and suitable for the use to which it is proposed the contracted land be put, or that development of the contracted land would provide more contiguous patterns of urban development than development of proximate non-contracted land. A finding under CGC §15182(b) requires that both of the following additional sub-findings: (i) that other public concerns substantially outweigh the objectives of the Williamson Act; and (ii) that there is no proximate non-contracted land that is both available and suitable for the use to which it is proposed the contracted land be put, or that development of the contracted land would provide more contiguous patterns of urban development than development of proximate non-contracted land. Until FY 2008-09, the State provided local governments with an annual subvention (subsidy) for the lost property tax revenues; the program was substantially discontinued due to revenue shortfalls. Local governments have been able to collect a portion of the foregone revenues through provisions of Assembly Bill 1265, enacted in 2011.

Z’berg-Nejedly Forest Practice Act of 1973 (FPA). The Forest Practice Act of 1973 is the primary forest regulation statute in California. It established a State Board of Forestry to manage forest practices and resources according to Forest Practice rules. CalFire enforces FPA requirements and serves as lead agency for projects that fall in the scope of the FPA. If timber operations are part of or affected by a project, these operations must be approved by CalFire. The FPA requires owners of nonfederal timberland to apply for a Timber Conversion Permit (TCP) for a project that would convert timberland to another use, unless covered by an exemption (including conversion areas under three acres and utility rights of way). If Cal Fire determines that a TCP is required, a Timber Harvesting Plan (THP) or notice of exemption may also be required. Harvested trees must be removed by a licensed timber operator, and the owner of the harvested timber is responsible for all yield taxes.

Timberland Production Zone. Timberland Production Zones (TPZs) were established in 1976 to preserve and protect timberland from conversion to other uses and avoid land use conflicts with timber-producing areas. The Timberland Productivity Act of 1982 later formalized the state’s policy in favor of sustainable harvest, focusing on the long-term availability of timber resources. The Act identifies uses judged compatible with TPZ lands: watershed management; fish and wildlife management (including hunting and fishing); uses related to the growing, harvesting, and processing of forest products; construction, alteration, or maintenance of utility facilities; and grazing. TPZ lands must comprise at least 160 acres (with some exceptions), and must be maintained in timber production for at least 10 years following the zoning declaration; an additional year is added to the initial term on each anniversary of the designation.

University of California Cooperative Extension (UCCE).¹¹ UCCE operates many programs to support agriculture, farming and horticulture in California. Programs include the 4-H program to support youth development; the Master

¹¹ University of California Cooperative Extension website: <http://ceinyo-mono.ucanr.edu/>

Gardener Program to support public efforts in education, horticulture, and gardening; the Master Food Preservers program to share research-based information on food safety and safe food preservation; and the Farm Advisor program. County Farm Advisors oversee the UCCE (including the 4-H and Master Gardener programs) and work to enhance California agricultural productivity and competitiveness and improve food safety. The Farm Advisor Office also conducts research and provides guidance to food producers on issues including season extension, selection of appropriate crop varieties, farm planning and budgeting, pest control and BMPs for small-scale horticultural crops.

4.11.4.3 Local Programs and Regulations

Development Credits Program. Chapter 12 of the Mono County *Draft Land Use Element* details a county implemented development credit program. The program dates back to the 1980s and allocated a fixed number of development credits to parcels of agriculturally designated land parcels, based upon the total acreage of the individual parcel or the total aggregated acreage of each individual landowner in the Bridgeport and Hammil Valleys and the Bodie Hills. As part of the current *RTP/General Plan Update*, some minor policy clarifications are proposed to the program and it may potentially be expanded to other areas of the County that desire expanded agricultural preservation policies.

Inyo and Mono Counties Agricultural Commissioner's Office.¹² This office promotes and protects the agricultural industry in both counties, protects the environment and citizen health and safety, and fosters confidence and equity in the marketplace. Main program areas include Human Safety and Environmental Protection, Consumer Protection and Product Quality, and Special Agricultural Services such as apiary, crop, sustainable agriculture and inspection statistics.

4.11.5 SIGNIFICANCE CRITERIA

Appendix G of the California CEQA Guidelines offers the following criteria for determining the significance of impacts to agriculture and forest resources. A project would have a potentially significant impact on hydrology if it would:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use, or conflict with existing zoning for agricultural use, or a Williamson Act contract?
- b) Conflict with existing zoning for, or cause rezoning of, forest land (as per PRC §12220(g)), timberland (per PRC §4526), or timberland zoned Timberland Production (per CGC §51104(g)), or result in the loss of forest land or conversion of forest land to non-forest use?

4.11.6 ENVIRONMENTAL IMPACTS AND MITIGATING POLICIES AND ACTIONS

IMPACT 4.11(a): Would implementation of the proposed RTP/General Plan Update convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use, or conflict with existing zoning for agricultural use, or a Williamson Act contract, or involve other changes that could result in conversion of Farmland to nonagricultural use?

LESS THAN SIGNIFICANT. As noted, Mono County has not been mapped pursuant to the Farmland Mapping and Monitoring Program, nor has most of the county been mapped by the USDA¹³ ¹⁴ (the initial intent of the most recent USDA mapping effort was to provide a county-level database, but the resources were not available). However, USDA conducted a 1992 Soil Survey of the Benton-Owens Valley Area¹⁵ that identified approximately 75,000 acres of land (about 7%) in the Benton-Owens Valley survey area that would qualify as prime soils if a reliable and adequate water

¹²Ag Commissioner website: <http://www.inyomonoagriculture.com/>

¹³ USDA website http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1167354.pdf; *Summary Report: 2010 National Resources Inventory*, Natural Resources Conservation Service, & Center for Survey Statistics & Methodology, Iowa State University. 2013

¹⁴USDA Web Soil Survey website: <http://websoilsurvey.nrcs.usda.gov/app/>

¹⁵ USDA & NRDC, Soil Survey of Benton-Owens Valley, 2001
(http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA802/o/Benton_OwensValley_CA.pdf)

supply was available. The 2013 analysis of *System Indicators for Agricultural Lands and Ranches* (SNC, op.cit.) indicates that Mono County had a total of 13,110 acres of land in Williamson Act contracts as of 2011. Moreover, the SNC data indicate no change in the acreage of prime soils in Mono County between 2006 and 2011.

Notwithstanding the paucity of specific soil data, several considerations indicate that the Mono County RTP/General Plan Update will not contribute to the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance to nonagricultural use. One consideration pertains to the structure and content of the *General Plan Land Use Element* use designations. Two land use designations in the draft General Plan Land Use Element are specifically directed to agricultural use, including 'Agriculture (AG)' and 'Scenic Area Agriculture (SAA)',¹⁶ and some form of agriculture is permitted in almost all of the use designations set forth in the draft Land Use Element. Table 4.11-2 below provides an overview of the two land use designations ('Agriculture (AG)' and 'Scenic Area Agriculture (SAA)') in the General Plan Land Use Element that are specifically directed to agricultural use, and identifies 11 additional land use designations in which small-scale agriculture is allowed. The Land Use Element defines 'small-scale agriculture' as *"gardens and orchards producing food for human consumption that do not exceed 10% of the total lot area. Such agriculture may be for personal or community use. Landscaping is not considered small-scale agriculture."*

TABLE 4.11-2: Land Use Element Agricultural Land Use Designations		
Use Designation	Intent	Permitted Uses
Agriculture (AG)	The "AG" designation is intended to preserve and encourage agricultural uses, to protect agricultural uses from encroachment from urban uses, and to provide for the orderly growth of activities related to agriculture.	<ul style="list-style-type: none"> • Agricultural uses, provided that such uses are proposed in conjunction with a bona fide agricultural operation, except those requiring a use permit • Single-family dwelling • Manufactured home used as a single-family dwelling • Accessory buildings and uses • Farm labor housing • Stands to sell agricultural products grown on the premises • Animals and pets • Home occupations • Fisheries & game preserves • Accessory Dwelling Unit
Scenic Area Agriculture (SAA)	<p>The "SAA" designation is intended to recognize existing and historic uses as certified in the USFS Private Land Certification Process and, within the constraints of the Mono Basin National Forest Scenic Area Plan (NFSAP), to allow for further limited-scale development and new uses consistent with purposes of the Scenic Area. Emphasis is placed on new uses that would provide for recreational, interpretive, visitor services and research opportunities while maintaining a natural and rural-appearing landscape.</p> <p>The SAA designation is intended also to preserve & encourage agricultural uses, protect agricultural uses from encroachment from urban uses, and provide for orderly</p>	<ul style="list-style-type: none"> • Agricultural uses, provided that such uses are proposed in conjunction with a bona fide agricultural operation, except those requiring a use permit • Single-family dwelling • Mobile home used as a single-family dwelling • Accessory buildings and uses • Stands to sell agricultural products grown on the premises • Animals and pets • Home occupations • Fisheries and game preserves • Single-family dwelling • Small-scale agriculture • Accessory buildings and uses • Attached Accessory Dwelling Unit

¹⁶ Note that the Scenic Area Agriculture designation currently applies to only one parcel.

	growth of activities related to agriculture, per with NFSAP.	
Use Designations Allowing Small-Scale Agriculture	Rural Residential (RR), Estate Residential (ER), Rural Mobile Home (RMH), Single Family Residential (SFR), Multifamily Residential (MFR), Mixed Use (MU), Rural Resort (RR), Commercial (C), Public and Quasi-Public Facilities (PF), Resource Management (RM), and Open Space (OS).	

In whole, the draft 2015 General Plan Land Use Element (LUE) designates 77,177 acres for agricultural use (AG), compared with a total of 79,156 acres so designated in the 2001 General Plan Land Use Element; substantial additional acreage is devoted to agriculture under other use designations that allow small-scale agriculture. Table 4.11-3 summarizes acreage designated for agricultural use in the Mono County community areas in the current Land Use Element Update and the adopted 2001 Land Use Element:

TABLE 4.11-3: Agricultural Land Use Acreages by Community, 2001 and Proposed 2015 Land Use Element			
COMMUNITY	2001 AG Acreage	Proposed 2015 AG Acreage	Percent Change
Antelope Valley	14,894	15,047	+1.0%
Bridgeport	24,823	24,270	-2.2%
Bodie Hills	14,251	12,465	-12.5%
Hammil	6,134	6,090	-0.7%
Mono Basin	255	293	+14.9%
Outside Planning Area	10,999	9,840	-10.5%
Mammoth Vicinity	3,084	3,809	+23.5%
Long Valley	3	3	No Change
Chalfant	1,136	1,166	+2.6%
Benton	3,578	4,194	+17.2%
TOTAL	79,156	77,177	-2.5%

As detailed in EIR §4.1 (Land Use) the changes proposed to the General Plan Land Use Element are largely the result of enhanced mapping tools, better characterization of uses, and changes proposed for Conway Ranch.

Mono County has taken proactive steps to protect agricultural activities through Chapter 24 of the Mono County Land Use Element. Chapter 24 sets forth 'Right-to-Farm' standards and regulations consistent with a finding by the Board of Supervisors that *"it is in the public's interest to preserve and protect agricultural land and agricultural operations within Mono County. The Board of Supervisors also finds that when nonagricultural land uses occur in or near agricultural areas, agricultural operations frequently become the subjects of nuisance complaints due to the lack of information about such operations. Such actions discourage investments in farm improvements to the detriment of agricultural uses and the viability of the county's agricultural industry as a whole."*

Chapter 24 is specifically intended to protect operations on land designated as Agricultural from conflicts with adjacent or nearby non-agricultural land uses. It achieves this goal by requiring that prospective purchasers of property located adjacent to or near agricultural operations be forewarned of the inconveniences that accompany living near agricultural operations, and accept those inconveniences as the natural result of living in or near agricultural lands. Among other provisions, Chapter 24 requires prospective sellers who wish to sell lands near agricultural activities to provide a formal disclosure statement to prospective buyers. The Disclosure Statement advises of nuisances that are common to such lands (including sounds, odors, dust and chemicals), and also advises prospective buyers of the county 'Nuisance Standards' which state: *"No agricultural operation conducted or maintained for commercial purposes and in a manner consistent with proper and accepted standards within the agricultural industry as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after the same has been in operation for more than three years if it was not a nuisance at the time it began."*

Chapter 24 is supported by numerous existing and proposed General Plan policies and actions that are intended to preserve and enhance agriculture as a viable long-term use in Mono County. In combination, the protections provided by Chapter 24, along with the proposed continuation of agricultural use designations generally as outlined in the 2001 *Land Use Element*, and the policies and actions contained throughout the proposed 2015 *General Plan Update*, will reduce potential impacts to agricultural lands to a level that is less than significant. It is furthermore concluded that, on the basis of information presented in the discussion of baseline conditions, the proposed changes will not contribute to a conversion of prime or unique soils, or Farmlands of Statewide Importance, to nonagricultural uses; impacts would be **less than significant**. Relevant policy and actions are discussed in §4.11.1(a) below.

**RTP/GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE
POTENTIAL IMPACTS TO AGRICULTURE**

Please refer to Table 4.11-5 in Appendix D.

IMPACT 4.11(b): Would implementation of the proposed RTP/General Plan Update conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland-zoned Timberland Production, or result in the loss of forest land or conversion of forest land to non-forest use?

LESS THAN SIGNIFICANT. The Mono County MEA (Land Use, 2010), indicates that approximately 94% of total land area in the county is publicly owned. Much of the public land is managed by USFS and BLM; LADWP also owns large parcels of land in the southern portion of the county. Much of the land is in some form of conservation: the 2011 SNC Systems Indicator report on *Land Conservation and Wildlife Habitat* (discussed more fully in the baseline overview) states that the East Subregion as a whole, including Mono County, has the highest level of conservation (98.3%) of any SNC region, of which 4% is privately owned, and much of which is contained in large, intact natural areas.

Much of Mono County is part of the Inyo National Forest (INF) boundary, which extends along the crest of the Sierra Nevada from the Mono Basin to the Kern Plateau and includes seven gateway communities (Lee Vining, June Lake, Mammoth Lakes, Bishop, Big Pine, Independence, and Lone Pine). The Inyo NF encompasses approximately 2 million acres of land, including about 56,481 acres of private and state lands and 26,711 acres of the Sierra National Forest and Humboldt-Toiyabe national forests, but not including Mono Lake which is within a designated national scenic area and covers an additional 37,277 acres. Almost half of the Inyo NF is designated as wilderness area (964,361 acres). A Draft Assessment Report,¹⁷ released by Inyo NF in November 2013, notes that communities in and adjacent to the Inyo NF are relatively small and discrete, with limited sprawl and limited checkerboard development; as a result, connectivity between the forest and adjoining ecosystems remains relatively intact.

The Forest Plan reviews external forces and trends that may shape future forest management practices. Among key findings, the Report notes that between 2000-10, population in the Inyo NF area of influence grew at a rate much lower (5.3%) than the 'bio-region'¹⁸ (14.6%) and the state and country as a whole (8% growth), and large areas of the Inyo NF showed population decreases – including North Mono (-19.3%). The Inyo NF concludes that “not much local population growth is possible due to large amounts of land under public ownership” and foresees a 37% increase in total Mono County population by the year 2050 – again, much lower than growth forecast for the bio-region as a whole during the same period (69%). With respect to economic influences, the report cites employment projections indicating that the

¹⁷ USDA, USFS *Inyo National Forest Draft Assessment Report*, released November 2013.

¹⁸ The 'Bio-Region' was defined in a separate USDA report (Final Sierra-Nevada Bio-Regional Assessment (Document Number: R5-MB-268, undated) as the entire Sierra Nevada mountain range and the California portion of the Cascades (north to the Oregon border and east to the Nevada border), including the Sierra Nevada foothills on the west, the Modoc Plateau in the northeast and the eastern portion of the Sierra range extending into Nevada & southeast to the White Mountains. Obtained at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5444575.pdf

greatest increases will occur in the healthcare, personal care and service occupations, and concludes that future trends in employment will not lead to an increased concentration of employment in forest-related sectors. Finally, discussion under Impact 4.11-1 notes that the acreage zoned for agriculture and ranch lands will remain largely unchanged under the proposed Land Use Element (a 2.5% reduction over acreage in the 2001 Land Use Element), with strong regulations and policies intended to support agriculture over the long term.

Neither the current nor the proposed Land Use Element has a use designation specifically oriented to 'forest lands' or 'timber,' nor does it provide a use designation for Timberland Production Zone lands. However, the General Plan Land Use Element does provide 'Resource Development Standards' that apply to project proposals to use or develop natural resources, including timber. Development standards therein apply to projects involving mineral resources, geothermal resources, wind and solar energy resources, hydropower resources, and timber resources. Use standards under this designation regulate lot size, setbacks, visual impacts, erosion and sediment control, noise, air quality, and infrastructure removal, and also set forth minimum requirements for reclamation, financial assurances, inspections, administration, and enforcement.

As part of the current RTP/General Plan update project, the County is considering implementation of a project to use sustainably available biomass feedstock to generate heat and energy. The project has been analyzed in a 2014 Biomass Feasibility Study¹⁹ prepared under the aegis of the Eastside Biomass Project Team, a broad consortium of representatives from the BLM, GC Forest Products, Inc., INF, Mammoth Lakes Fire Protection District, Mammoth Mountain Ski Area, Mono County, the SNC, and the Town of Mammoth Lakes, with technical assistance from the GBUAPCD and SCE. The study goal was to evaluate the viability of siting a bioenergy facility in the central Mono County and Mammoth Lakes area using sustainably-available forest biomass sourced as a byproduct of forest management and fuels treatment programs. Three types of facility were initially considered (thermal only, combined heat and power, and electricity only), and four potential biomass sources were identified as outlined in Table 4.11-5:

TABLE 4.11-4: Biomass Source Materials		
Source	Potential 'Bone-Dry Tons' Available per Year	Anticipated Material Delivered Costs per Ton
Timber Harvest Residuals	2,864	\$45-\$60
Fuels Treatment Activity Residuals	225	\$25-\$30
Forest Products Manufacturing Residuals	285	\$20-\$25
Urban Wood Waste	1,945	\$25-\$30

Siting considerations included three critical constraints (appropriate existing use designations, site with an area of at least two acres or larger, and access by chip van on roads classified for use by Legal Truck Tractor vehicles), and five secondary considerations (heat load [a profile of and total heat demands and distance of heat load from the conversion facility], an available power infrastructure, adequate distance from sensitive receptors, available water supplies, and options for wastewater discharge). Using these factors, the study identified seven potentially feasible sites for locating a combined heat and power facility, and seven sites for a biomass thermal project.

Based on biomass feedstock availability and cost, the study results indicated that there is insufficient biomass sustainably available for a combined heat-and-power or for an electricity-only bioenergy facility. This finding is consistent with a statement in the *Draft Conservation/Open Space Element* that timber is rarely harvested commercially on private lands in the county, and is a minor economic resource for Mono County. The Mono County MEA (Chapter VIII, Scenic Resources) concludes that the relatively low timber resource value has kept county lands free from the scars of timber harvesting. In keeping with these findings, the Biomass Feasibility Study recommended that the Biomass Team focus on thermal applications to promote the sustainable utilization of wood waste.

The General Plan contains a wide range of policies and actions that support long-term continued collaboration with public land managers including USFS, BLM and LADWP, including strong support for practices that protect forest

¹⁹ Mono County Community Development Department, *Comprehensive Feasibility Study for a Heat and/or Power Biomass Facility and Expanded Forest Products Utilization*, February 2014. Prepared by TSS Consultants. Note that the report defines tonnage in terms of Bone-Dry Tons (BDT).

resources. These policies and actions, in combination with other plans and planning considerations, indicate that approval and implementation of the draft RTP/General Plan update will not conflict with existing zoning for, or cause rezoning of, forest land (as per PRC §12220(g)), timberland (per PRC §4526), or timberland zoned Timberland Production (per CGC §51104(g)), or result in the loss of forest land or conversion of forest land to non-forest use; impacts would be ***less than significant***. The relevant plans and considerations supporting this conclusions include the regional dominance of public lands (managed for conservation including forest and timber resources), General Plan provisions for working collaboratively with public agencies that manage adjoining forest resources, standards for timber recovery, and efforts to proactively utilize downed forest materials as material to fuel a biomass heat and power facility. Applicable mitigating policies are discussed in §4.11.1(a) below.

**RTP/GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE
IMPACTS TO FOREST RESOURCES**

Please refer to Table 4.11-5 in Appendix D.
